

Claims

- [c1] 1. A bonding pad structure, suitable for use in a chip, the chip having an active surface, the bonding pad structure comprising:
a bonding pad disposed on the active surface; and
a protruding pad, disposed on the bonding pad and protruded from a top surface of the bonding pad, a turning angle existing at a bonding location between a side profile of the protruding pad and a top surface of the bonding pad, wherein the turning angle is less than 90 degrees for smoothing a current turning path when a current flows through the turning angle.
- [c2] 2. The bonding pad structure of claim 1, wherein the side profile of the protruding pad is a curving surface.
- [c3] 3. The bonding pad structure of claim 1, wherein the side profile of the protruding pad is an arc surface.
- [c4] 4. The bonding pad structure of claim 1, wherein a material of the protruding pad includes copper, aluminum, gold, or alloy thereof.
- [c5] 5. The bonding pad structure of claim 1, wherein the bonding pad includes copper or aluminum.

- [c6] 6. A conductive structure on bonding pad, suitable for use in a chip, the chip having at least a bonding pad, the conductive structure on bonding pad comprising:
a protruding pad, disposed on the bonding pad and protruded from a top surface of the bonding pad, a turning angle existing at a bonding location between a side profile of the protruding pad and a top surface of the bonding pad, wherein the turning angle is less than 90 degrees;
an under bump metallurgic layer, disposed on a surface of the protruding pad farther away from the top surface of the bonding pad; and
a conductive bump, having a bottom connected to a surface of the under bump metallurgic layer.
- [c7] 7. The conductive structure on bonding pad of claim 6, wherein the side profile of the protruding pad is a curving surface.
- [c8] 8. The conductive structure on bonding pad of claim 6, wherein the side profile of the protruding pad is an arc surface.
- [c9] 9. The conductive structure on bonding pad of claim 6, wherein a material of the protruding pad includes copper, aluminum, gold, or alloy thereof.

- [c10] 10. The conductive structure on bonding pad of claim 6, wherein the under bump metallurgic layer includes one selected from the group consisting of aluminum, titanium, tungsten, nickel, gold, copper and alloy thereof.
- [c11] 11. The conductive structure on bonding pad of claim 6, wherein the turning angle is less than 45 degrees.
- [c12] 12. The conductive structure on bonding pad of claim 6, wherein the conductive bump includes alloy of tin and lead.
- [c13] 13. A chip structure, at least comprising
an active surface;
a bonding pad disposed on the active surface;
a protruding pad, disposed on the bonding pad and protruded from a top surface of the bonding pad, a turning angle existing at a bonding location between a side profile of the protruding pad and a top surface of the bonding pad, wherein the turning angle is less than 90 degrees for smoothing a current turning path when a current flows through the turning angle;
a passivation layer disposed on the active surface and encompassing the bonding pad and the protruding pad;
an under bump metallurgic layer, disposed on a surface of the protruding pad farther away from the top surface

of the bonding pad and a portion of the passivation layer; and
a conductive bump, having a bottom connected to a surface of the under bump metallurgic layer.

[c14] 14. The chip structure of claim 13, wherein the side profile of the protruding pad is a curving surface.

[c15] 15. The chip structure of claim 13, wherein the side profile of the protruding pad is an arc surface.